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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,751	09/03/2004	Katsuya Yamamoto	09792486-0154	6582
26263	7590	04/06/2007	EXAMINER	
SONNENSCHEIN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080			BALAOING, ARIEL A	
			ART UNIT	PAPER NUMBER
			2617	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	04/06/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/506,751	YAMAMOTO, KATSUYA
	Examiner Ariel Balaoing	Art Unit 2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 17 January 2007.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1,3-7 and 9-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1,3-7 and 9-14 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 03 September 2004 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 01/12/2007.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/12/2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 13 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Amended claims 13 and 14 include the limitation wherein the step of temporarily stopping output of transmission data further

comprises temporarily forcing the data-link layer into the first mode **irregardless of whether the other layer is in a data congestion state**. Support for the newly added limitations cannot be found in the specification or drawings.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1, 3, 5, 7, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over IMATSUKA (JP 2002095051) in view of SEPPANEN (US 6,330,442) and NEVO et al (US 2003/0214961 A1).

Regarding claims 1, IMATSUKA discloses a radio communication method in a phone having a first part operatively configured to effect a first bidirectional radio communication [cellular phone function] with a predetermined station and a second part operatively configured to effect a second bidirectional radio communication [short range radio communication function] with a reader/writer when the phone is positioned adjacent to the reader writer, (42-Figure 5) (abstract; paragraph 13), the method comprising: detecting, via the second part of the phone, a signal transmitted by the reader/writer to start the second radio communication with the reader/writer (paragraph 7-10; a short-distance radio communication function is initiated when the portable telephone is positioned in proximity of the ticket gate); and in response to detecting the signal transmitted by the reader/writer to start the second radio communication with said reader/writer (paragraph 2, 7-10; Bluetooth communication is initiated), temporarily

stopping output of transmission data in the first radio communication with said predetermined station (paragraph 7-10; paragraphs 39-53; the call in progress is temporarily interrupted in order to perform gate processing. As pointed out by the applicant, the station and time codes are sent to the partner of the call before the interruption occurs), such that the temporary stop is such that the second radio communication is inhibited from causing interference in the first radio communication (paragraph 7-10; it has been well established in the art that inhibiting a wireless communication connection between one of two devices in close proximity to each other will inhibit interference to the active connection); wherein the step of temporarily stopping output of transmission data comprises stopping via a controller associated with the second part of the phone, the inputting of transmission data (paragraphs 6, 11-39, 62, and 63; phone call is interrupted when short range transmission is detected).

However IMATSUKA does not disclose wherein the data is stored in a buffer. SEPPANEN discloses wherein transmission data is stored in a buffer (column 14:lines 37-48). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify IMATSUKA to include a storage buffer for transmission data as taught by SEPPANEN as both systems disclose signal transmissions from a portable device. This is beneficial in that it allows the mobile device to control the transmission rate of outgoing data. Furthermore it is well known in the art to buffer wireless communications before sending transmissions. However, the combination of IMATSUKA and SEPPANEN does not expressly disclose wherein in response to detecting a signal to start a second radio communication, temporarily

stopping output of transmission data in a first radio communication such that the second radio communication is immediately inhibited from causing interference in the first radio communication (IMATSUKA teaches that a message is first sent to caller/called party before temporarily stopping communication with said caller/called party). NEVO discloses wherein in response to detecting a signal to start a second radio communication, temporarily stopping output of transmission data in a first radio communication such that the second radio communication is immediately inhibited from causing interference in the first radio communication (abstract; Figure 9B; paragraph 9-11). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA and SEPPANEN to include the teachings of NEVO, since NEVO states that such a modification would result in less data corruption and loss data (paragraph 7).

Regarding claim 3, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. IMATSUKA further discloses transmitting packets having control data associated with said first bidirectional radio communication even when no data is stored in said buffer (paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a control channel is left open between the portable device and the called party).

Regarding claim 5, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. IMATSUKA further discloses further comprising: detecting, via the second part of the phone, the completion of said second radio communication (paragraphs 7-14, 60-69); and when completion of said second radio

communication is detected, permitting the outputting of the transmission data is released (paragraphs 60-69).

Regarding claim 7, IMATSUKA discloses a radio communication unit comprising: a first radio communication processor operatively configured to generate a first bidirectional radio communication [cellular phone function] with a predetermined station (paragraphs 11-39, 39-53), a second radio communication processor operatively configured to generate a second bidirectional radio communication [short range radio communication function; SF card] with an adjacent reader/writer (42-Figure 5) (abstract; paragraph 2, 11-39), and a controller operatively configured to detect a signal transmitted by the reader/writer for starting the second radio communication with the reader/writer and to temporarily stop output of transmission data in said first radio communication processor (paragraphs 11-39, 39-53), such that the second radio communication is inhibited from causing interference in the first radio communication (paragraph 7-10; it has been well established in the art that inhibiting a wireless communication connection between one of two devices in close proximity to each other will inhibit interference to the active connection); wherein the controller stops the output of transmission data by temporarily inhibiting the input of the transmission data (paragraphs 6, 11-39, 62, and 63; phone call is interrupted when short range transmission is detected). However IMATSUKA does not expressly disclose wherein a buffer is used to temporarily store the transmission data for output. SEPPANEN discloses wherein a buffer is used to temporarily store the transmission data for output. (column 14:lines 37-48). Therefore it would have been obvious to a person of ordinary

skill in the art at the time the invention was made to modify IMATSUKA to include a storage buffer for transmission data as taught by SEPPANEN as both systems disclose signal transmissions from a portable device. This is beneficial in that it allows the mobile device to control the transmission rate of outgoing data. Furthermore it is well known in the art to buffer wireless communications before sending transmissions. However, the combination of IMATSUKA and SEPPANEN does not expressly disclose wherein in response to detecting a signal to start a second radio communication, temporarily stopping output of transmission data in a first radio communication such that the second radio communication is immediately inhibited from causing interference in the first radio communication (IMATSUKA teaches that a message is first sent to caller/called party before temporarily stopping communication with said caller/called party). NEVO discloses wherein in response to detecting a signal to start a second radio communication, temporarily stopping output of transmission data in a first radio communication such that the second radio communication is immediately inhibited from causing interference in the first radio communication (abstract; Figure 9B; paragraph 9-11). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA and SEPPANEN to include the teachings of NEVO, since NEVO states that such a modification would result in less data corruption and loss data (paragraph 7).

Regarding claim 9, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. IMATSUKA further discloses wherein the controller stops the output of transmission data while permitting the transmission of

packets having control data associated with said first bidirectional radio communication, even when no data is stored (paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a control channel is left open between the portable device and the called party).

Regarding claim 11, see the rejections of the parent claim concerning the subject matter this claim is defendant upon. IMATSUKA further discloses wherein said controller is operatively configured to detect the completion of said second radio communication and to release the processing to temporarily stop outputting the transmission data in said first radio communication processor, when completion of the radio communication in said second radio communication processor is detected (paragraphs 11-39, 38-53).

7. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over IMATSUKA (JP 2002095051) in view of SEPPANEN (US 6,330,442) and NEVO et al (US 2003/0214961 A1), and in further view of AMRANY et al (US 6,711,207 B1).

Regarding claim 4, the combination of IMATSUKA, SEPPANEN, and NEVO further discloses wherein the step of temporarily stopping output of transmission data further comprises transmitting packets having control data associated with said first bidirectional radio communication even when no data is stored (IMATSUKA - paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a control channel is left open); wherein transmission data is stored in a buffer (SEPPANEN column 14:lines 37-48). However, the combination of IMATSUKA, SEPPANEN, and NEVO does not disclose wherein the packets transmitted when no

data is stored in said buffer are transmitted at the lowest transmission rate. AMRANY discloses wherein the packets transmitted when no data is stored in said buffer are transmitted at the lowest transmission rate (abstract). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA, SEPPANEN, and NEVO to transmit packets at the lowest rate when no data is being sent as taught by AMRANY since this would allow the preservation of battery power by using lowered transmission power when there is no data present.

Regarding claim 10, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. the combination of IMATSUKA, SEPPANEN, and NEVO further discloses wherein the controller stops the output of transmission data by temporarily inhibiting the input of the transmission data while permitting the transmission of packets having control data associated with said first bidirectional radio communication, even when no data is stored (IMATSUKA - paragraphs 6, 11-39, 62, and 63; call is placed on hold, hence no data is stored and a transmission channel is left open); wherein transmission data is stored in a buffer (SEPPANEN - column 14:lines 37-48). However, the combination of IMATSUKA, SEPPANEN, and NEVO does not disclose wherein the packets transmitted in said state of - having no data are transmitted at the lowest transmission rate. AMRANY discloses wherein the packets transmitted in said state of - having no data are transmitted at the lowest transmission rate (abstract). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of IMATSUKA,

SEPPANEN, and NEVO to transmit packets at the lowest rate when no data is being sent as taught by AMRANY since this would allow the preservation of battery power by using lowered transmission power when there is no data present.

8. Claims 6 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over IMATSUKA (JP 2002095051) in view of SEPPANEN (US 6,330,442) and NEVO et al (US 2003/0214961 A1), further in view of VEGA et al (US 6,282,407 B1).

Regarding claims 6 and 12, see the rejections of the parent claims concerning the subject matter these claims are dependant upon. However the combination of IMATSUKA, SEPPANEN, and NEVO does not disclose wherein the signal transmitted by the reader/writer to start the second radio communication is an electric power wave, and said second radio communication operates under power obtained by receiving electric power wave supplied from said reader/writer. VEGA discloses wherein the signal transmitted by the reader/writer to start the second radio communication is an electric power wave, and said second radio communication operates under power obtained by receiving electric power wave supplied from said reader/writer (column 2:lines 27-40). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify IMATSUKA, SEPPANEN, and NEVO to include a passive powering means as taught by VEGA since both systems relate to using a short ranged interrogation/response communication system. This is beneficial in that no power is needed to operate the secondary transmission system when in range of the interrogator.

***Allowable Subject Matter***

9. Claims 13 and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 13 and 14, the prior art of record does not expressly disclose a software-hierarchy communication model run by the radio communication processor, the communication model having a data-link layer and another layer, the data-link layer being operatively configured to manage transmission data congestion associated with the other layer when in a first mode, wherein the step of temporarily stopping output of transmission data further comprises temporarily forcing the data-link layer in to the first mode regardless of whether the other layer is in a data congestion state.

While it is well known in the art for the data-link layer to control data flow of a network using the OSI seven-layer model, congestion control is achieved by determining congestion conditions. Therefore, when the data link layer is placed into a congested mode, as seen in CHINTADA (US 2002/0118639), congestion of the link is used to make a mode determination.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ariel Balaoing whose telephone number is (571) 272-

7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ariel Balaoing – Art Unit 2617

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